

CLAIMS

What is claimed is:

1. A method for interacting with, exchanging data with, and rewarding a consumer  
5 to encourage the consumer to remain loyal to a commercial location, comprising:  
  
providing a central computer comprising a central microprocessor operably coupled to a  
central data storage unit, the central data storage unit comprising a commercial directory;  
  
providing a hand-held computer comprising a display screen, a data entry unit, a data  
transfer mechanism, a data storage unit, and a microprocessor coupled to the display screen, the  
10 data entry unit, the data transfer mechanism, and the data storage unit;  
  
providing a plurality of data distribution nodes, each of the data distribution nodes having  
a data input unit configured for inputting data into the central data storage unit of the central  
computer and a node data transfer mechanism;  
  
installing each of the data distribution nodes in publicly accessible locations within or in  
15 proximity to the commercial location;  
  
operably coupling each of the data distribution nodes to the central computer;  
  
delivering the hand-held computer to the consumer;  
  
operatively coupling the data transfer mechanism of the hand-held computer with the  
node data transfer mechanism of the closest of the plurality of data distribution nodes; and  
20 transmitting at least a portion of the commercial directory through the node data transfer

mechanism and to the data transfer mechanism of the hand-held computer.

2. The method of claim 1, wherein each of the plurality of data distribution nodes comprises a docking station adapted to interface with one of the plurality of hand-held  
5 computers, the node data transfer mechanism comprises a first electrical contact connection, the data transfer mechanism of the hand-held computer comprises a second electrical contact connector and is operatively coupled to the data distribution node by inserting one of the plurality of hand-held computers into the docking station to connect the first electrical contact connector with the second electrical contact connector to allow the data distribution node to  
10 transmit data between the hand-held computer and the central computer.

3. The method of claim 1, wherein the data transfer mechanism of the hand-held computer comprises a first transmitter/receiver, the node data transfer mechanism comprises a second transmitter/receiver, and the first and second transmitter/receivers enables electronic  
15 communication between each of the plurality of hand-held computers and the central computer.

4. The method of claim 3, comprising:  
  
transmitting an identification signal from the second transmitter/receiver of the data distribution node to alert any of the plurality of hand-held computers that are within range of the  
20 transmission that they are within range.

5. The method of claim 4, comprising:

providing each of the plurality of hand-held computers with an automatic transmission unit configured to automatically transmit a data request to the nearest data distribution node after the hand-held computer receives the identification signal.

6. The method of claim 4, comprising:

providing each of the plurality of hand-held computers with a smart label that reflects the identification signal to form a reflected signal that is unique to each of the hand-held computers, the receipt of the reflected signal by the data distribution node being reported to a report database of the central computer.

7. The method of claim 3, comprising:

using the first transmitter/receiver of the hand-held computer to transmit an electronic request to the central computer through the second transmitter/receiver of the data distribution node, the electronic request containing a first electronic signature that identifies the hand-held computer that is transmitting the electronic request;

delivering the electronic request to the central computer with a second electronic signature, the second electronic signature identifying the location of the data distribution node that delivered the electronic request;

processing the electronic request and preparing an electronic response;

delivering the electronic response from the central computer to the data distribution node identified in the second electronic signature;

transmitting the electronic response from the second transmitter/receiver of the data  
5 distribution node, the transmission being routed to the hand-held computer that sent the electronic request as directed by the first electronic signature;

storing the electronic response in the data storage unit of the hand-held computer; and

displaying the electronic response on the display screen of the hand-held computer.

10           8.       The method of claim 1, wherein the central data storage unit comprises a consumer database that associates a description of products purchased and a plurality of electronic points with an identity of each consumer, the data input unit of each data distribution node comprises a cash register, and the method further comprises:

selecting the products that the consumer would like to purchase;

15           inputting through the cash register a description of products purchased into the consumer database;

operably connecting the hand-held computer with the data distribution node;

transmitting the identity of the consumer making the purchase;

comparing the identity of the consumer with the consumer database;

associating the description of products purchased with the identity of the consumer in the consumer database;

awarding a plurality of electronic points to the consumer in proportion to the value of the products purchased;

5        adding the plurality of electronic points awarded to any other electronic points already earned;

recording the sum of all of the plurality of electronic points in the consumer database;

downloading to the hand-held computer the value of the accumulated electronic points;

providing a reward in exchange for the accumulated electronic points, the reward acting  
10    as an incentive for the consumer to accumulate the electronic points.

9.        The method of claim 8, wherein the central data storage unit comprises a coupon database containing a plurality of coupons, and the method further comprises:

operably coupling the hand-held computer with the data distribution node;

15        transmitting the identity of the consumer with a request for coupons;

locating the identity of the consumer and the associated description of products purchased;

comparing the description of products purchased with the plurality of coupons available in the coupon database; and

downloading the coupons that are determined to be similar to the description of products purchased.

10. A method for distributing flight data to a traveler comprising:

5 providing a central computer comprising a central microprocessor operably coupled to a central data storage unit;

programming into the central data storage unit a flight database comprising flight data;

providing a hand-held computer comprising a display screen, a keypad, a data storage unit, a data transfer mechanism, and a microprocessor operatively connected to the display  
10 screen, the keypad, the data transfer mechanism, and the data storage unit;

providing a plurality of data distribution nodes, each of the data distribution nodes comprising a data transfer unit configured to transfer data from the central data storage unit to the hand-held computer in response to the data transfer mechanism of the hand-held computer;

installing each of the data distribution nodes in publicly accessible locations within an  
15 airport;

operably coupling each of the data distribution nodes to the central computer;

delivering the hand-held computer to the traveler;

updating the flight data stored in the flight database on a regular basis;

operatively coupling the hand-held computer with the closest of the plurality of data

distribution nodes when the traveler is ready to travel; and

transmitting from the central computer to the hand-held computer the flight data.

11. The method of claim 10, wherein the data transfer mechanism of the hand-held  
5 computer comprises a first transmitter/receiver, the data transfer unit of the data distribution node  
comprises a second transmitter/receiver, and an operative connection between the first and  
second transmitter/receivers enables electronic communication between each of the plurality of  
hand-held computers and the central computer through the closest of the data distribution nodes.

10 12. The method of claim 11, comprising:  
  
transmitting an identification signal from the second transmitter/receiver of the data  
distribution node to alert any of the plurality of hand-held computers that are within range of the  
transmission that they are within range.

15 13. The method of claim 12, comprising:  
  
providing each of the plurality of hand-held computers with an automatic data request  
transmission unit configured to automatically transmit a data request to the nearest data  
distribution node after the hand-held computer receives the identification signal; and  
  
transmitting the data request to the central computer upon receipt of the identification

signal by one of the plurality of hand-held computers.

14. The method of claim 13, wherein the flight data comprises flight arrival places, flight arrival times, flight departure places, flight departure times, the method comprising:

5 providing a traveler database comprising a plurality of identities of travelers; and

associating an identity of a traveler with one of the flight arrival places, flight arrival times, flight departure places, and flight departure times.

15. The method of claim 14, comprising:

10 inputting an identification number uniquely associated with each of the plurality of hand-held computers;

transmitting the identification number upon receipt of the identification signal;

comparing the identity of a traveler with the associated flight arrival places and times and the associated flight departure places and times; and

15 alerting the traveler if there have been any changes to the associated flight arrival places and times and the associated flight departure places and times.

16. The method of claim 12, comprising:

providing each of the plurality of hand-held computers with a smart label that reflects the identification signal to form a reflected signal that is unique to each of the hand-held computers, the receipt of the reflected signal by the data distribution node being reported to a report database of the central computer.

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17. The method of claim 11, comprising:

using the first transmitter/receiver of the hand-held computer to transmit an electronic request to the central computer through the second transmitter/receiver of the data distribution node, the electronic request comprising a first electronic signature that identifies the hand-held  
10 computer that is transmitting the electronic request;

delivering the electronic request to the central computer with a second electronic signature, the second electronic signature identifying the location of the data distribution node that delivered the electronic request;

processing the electronic request by the central microprocessor and preparing an  
15 electronic response;

delivering the electronic response from the central computer to the data distribution node identified in the second electronic signature;

transmitting the electronic response from the second transmitter/receiver of the data distribution node, the transmission being routed to the hand-held computer that sent the  
20 electronic request as directed by the first electronic signature;

storing the electronic response in the data storage unit of the hand-held computer; and

displaying the electronic response on the display screen of the hand-held computer.

18. A method for providing an electronic concierge service to a hotel guest

5 comprising:

providing a central computer comprising a central microprocessor operably coupled to a  
central data storage unit;

programming into the central data storage unit an entertainment database;

10 providing the hotel guest with a hand-held computer comprising a display screen, a  
keypad, a data storage unit, a data transfer mechanism, and a microprocessor coupled to the  
display screen, the keypad, the data storage unit, and the data transfer mechanism;

providing a plurality of data distribution nodes comprising a data transfer unit configured  
to download data from the central data storage unit to the hand-held computer in response to the  
data transfer mechanism of the hand-held computer;

15 installing the data distribution nodes in publicly accessible locations around the hotel;

operably coupling the data distribution nodes to the central computer;

inputting into the entertainment database entertainment information of interest to the  
hotel guest;

operatively coupling the hand-held computer with the closest of the plurality of data

distribution nodes; and

transmitting information from the entertainment database from the central computer to the hand-held computer.

5           19.     A method for distributing data from a travel agency to a traveler comprising:

providing a central computer comprising a central microprocessor operably coupled to a central data storage unit;

programming into the central data storage unit a traveler database, a flight database, and an entertainment database;

10           programming into the flight database a plurality of flight arrival places and times and a plurality of flight departure places and times;

programming into the entertainment database entertainment information of interest to the traveler;

15           programming into the traveler database an identity of the traveler who will be using the services of the travel agency;

associating the identity of the traveler in the traveler database with a flight departure time and a flight arrival time;

associating the identity of the traveler in the traveler database with entertainment information of interest to the traveler;

providing the traveler with a hand-held computer comprising a display screen, a keypad, a data storage unit, a data transfer mechanism, and a microprocessor operatively coupled to the data storage unit, the display screen, the keypad, and the data transfer mechanism; and

transmitting from the central computer to the hand-held computer the entertainment  
5 information, flight departure time, and flight arrival time associated with the identity of the traveler.

20. The method of claim 19, comprising:

providing a plurality of data distribution nodes comprising a data transfer unit configured  
10 to download data from the central data storage unit to the hand-held computer in response to the data transfer mechanism of the hand-held computer;

installing each of the data distribution nodes in locations accessible to the traveler during  
a trip;

operably coupling each of the data distribution nodes to the central computer;

15 updating the information stored in the flight database and the entertainment database on a regular basis;

operatively coupling the hand-held computer with the closest of the plurality of data  
distribution nodes;

transmitting from the central computer to the hand-held computer the flight departure  
20 places and times and the flight arrival places and times associated with the identity of the

traveler; and

transmitting from the central computer to the hand-held computer the entertainment information of interest associated with the identity of the traveler.